Orangeville on the 10th. The average precipitation was 2.40, or 1.07 below normal; the greatest monthly amount, 6.39, occurred at Camp Dennison, and the least, 0.84, at Canal Dover.—*J. Warren Smith.*

Oklahoma and Indian Territories.—The mean temperature was 68.1°, or 1.8 below normal; the highest was 97°, at Waukomis on the 31st, and the lowest, 39°, at Osage on the 3d. The average precipitation was 4.59, or 0.55 below normal; the greatest monthly amount, 8.92, occurred at Osage, and the least, 0.80, at Beaver.—*C. M. Strong.*

Oregon.—The mean temperature was 56.5°, or 0.7° above normal; the highest was 94°, at Pendleton on the 3d, and the lowest, 21°, at Riverside on the 11th. The average precipitation was 3.02, or 0.20 above normal; the greatest monthly amount, 9.13°, occurred at Glenora, and the least, 0.03, at The Dalles.—*E. A. Beals.*

Pennsylvania.—The mean temperature was 64.0°, or 0.7° above normal; the highest was 96°, at Derry Station and Irwin on the 17th, and the lowest, 20°, at Smethport on the 4th. The average precipitation was 2.79, or 1.96 below normal; the greatest monthly amount, 7.63, occurred at Forks of Neshaminy, and the least, 0.72, at Selins Grove.—*L. M. Dey.*

South Carolina.—The mean temperature was 70.2°, or 1.5 below normal; the highest was 96°, at Liberty on the 13th and at Yorkville on the 14th, and the lowest, 38°, at Walhalla on the 10th and at Trial on the 11th. The average precipitation was 2.37, or 0.91 below normal; the greatest monthly amount, 4.99, occurred at Yorkville, and the least, 1.17, at Society Hill.—*J. W. Bauer.*

South Dakota.—The mean temperature was 62.6°, or about 6.0° above normal; the highest was 101°, at Forest City on the 11th, and the lowest, 19°, at Watertown on the 3d. The average precipitation was 1.10, or about 2.14 below normal; the greatest monthly amount, 2.90, occurred at Greenwood, and the least, 0.01, at Shilo.—*S. W. Glenn.*

Tennessee.—The mean temperature was 67.1°, or about normal; the highest was 97°, at McKenzie on the 16th, and the lowest, 29°, at Erasmus on the 4th. The average precipitation was 2.57, or 1.11 below normal; the greatest monthly amount, 7.25, occurred at Savannah, and the least, 0.75, at Union City.—*H. C. Bate.*

Texas.—The mean temperature, determined by comparison of 47 stations distributed throughout the State, was 1.2° below normal. There was a slight excess along the immediate east coast and in a few scattered localities, while there was a general deficiency elsewhere, ranging from 1.0° to 3.3° over the northwestern half of the State. The highest was 105°, at Fort Ringgold on the 19th, and the lowest, 40°, at Tyler on the 16th. The average precipitation, determined by comparison of 53 stations distributed throughout the State, was 1.70 above normal. Nearly normal conditions prevailed along the eastern and western portions of the coast and the extreme western portion of west Texas. There was a deficiency in localities over the eastern portion of north Texas; over the other portions of the State there was a general excess ranging from 1.00 to 9.80, with the greatest in the vicinity of Fort Clark. The rainfall was generally heavy over central and southwest Texas. The greatest monthly amount, 12.50, occurred at Fort Clark, and the least, 0.10, at Point Isabel.—*I. M. Cline.*

Utah.—The mean temperature was 59.4°, or 2.5° above normal; the highest was 101°, at Elgin on the 25th, and the lowest, 21°, at Tropic on the 12th. The average precipitation was 0.36, or 0.84 below normal; the greatest monthly amount, 1.52, occurred at Millville, while none fell at Kelton, Cisco, and Elgin.—*L. H. Murdoch.*

Virginia.—The mean temperature was 64.7°, or nearly normal; the highest was 100°, at Columbia on the 14th, and the lowest, 25°, at Meadowdale on the 4th and at Columbia on the 10th. The average precipitation was 2.79, or 1.20 below normal; the greatest monthly amount, 4.52, occurred at Fontella, and the least, 1.12, at Standardsville.—*E. A. Evans.*

Washington.—The mean temperature was 56.2°, or 1.2° above normal; the highest was 93°, at Pasco on the 3d, and the lowest, 25°, at Wilbur on the 21st. The average precipitation was 3 33, or 0.69 above normal; the greatest monthly amount, 13.62, occurred at Monte Cristo, and the least, 0.10, at Sprague.—*G. N. Salisbury.*

West Virginia.—The mean temperature was 62.5°, or nearly normal; the highest was 98°, at Point Pleasant on the 18th, and the lowest, 21°, at Grafton on the 10th. The average precipitation was 2.99, or 1.02 below normal; the greatest monthly amount, 6.75, occurred at Princeton, and the least, 0.35, at Martinsburg.—*E. C. Vose*

Wisconsin.—The mean temperature was 59.0°, or 2.8° above normal; the highest was 92°, at Grantsburg on the 11th, at Eau Claire and Osceola on the 12th, and at Prairie du Chien on the 14th, and the lowest, 16°, at Butternut, Hayward, Medford, and Osceola on the 4th. The average precipitation was 1.58, or 2.16 below normal; the greatest monthly amount, 3.77, occurred at Dodgeville, and the least, 0.32, at Hayward.—*W. M. Wilson.*

Wyoming.—The mean temperature was 55.3°, or 4.2° above normal; the highest was 97°, at Lovell on the 10th, and the lowest, 16°, at Centennial on the 1st. The average precipitation was 0.59, or 1.29 below normal; the greatest monthly amount, 2.42, occurred at Fort Yellowstone, and the least, trace, at several stations.—*W. S. Palmer.*

SPECIAL CONTRIBUTIONS.

RECENT PAPERS BEARING ON METEOROLOGY.

W. F. R. PHILLIPS, in charge of Library, etc.

The subjoined list of titles has been selected from the contents of the periodicals and serials recently received in the library of the Weather Bureau. The titles selected are of papers or other communications bearing on meteorology or cognate branches of science. This is not a complete index of the meteorological contents of all the journals from which it has been compiled; it shows only the articles that appear to the compiler likely to be of particular interest in connection with the work of the Weather Bureau:

Symons's Monthly Meteorological Magazine. London. Vol. 35.
—— Meteorological Extremes. III. Wind Force. P. 49 and 65.
—— Indian Famine causing Droughts and their Prevision. P. 66.

American Journal of Science. New Haven 4th series. Vol. 9.
Barus C. On a Method of Studying the Diffusion (Transpiration) of Air through Water, and on a Method of Barometry. P. 397.

Naturwissenschaftliche Rundschau. Braunschweig. 15 *Jahrg.*
Schwalbe, G., J. Elster, und H. Geitel. Ueber die Existenz electrischer Ionen in der Atmosphäre. Beitrage zur Kenntniss der Atmosphärischen Elektricität. P. 252.

McClures' Magazine. New York. Vol. 15.
Chanute, O. Experiments in Flying. P. 127.

Ciel et Terre. Bruxelles. 21*me Année.*
Arctowski, H. Observations sur l'aurore australe faites pendant l'hivernage de l'Expédition Antarctique Belge. P. 127.
Linden, E. V. Organismes et variations atmosphériques. P. 131.
Arctowski, H. Quelques résultats des observations météorologiques faites à Punta-Arenas (Amérique du Sud) par le Rév. P. Marabini.

Scientific American. New York. Vol. 82.
—— Atmospheric Resistance to Railroad Trains. P. 354 and 356.

Das Wetter. Berlin. 17 *Jahrg.*
Kassner, C. Das meteorologische Observatorium auf der Schneekoppe. P. 97.

Philosophical Magazine. London. Vol. 49.
Wilson, H. B. Variation of Electric Intensity and Conductivity along the Electric Discharge in Rarefied Gases. P. 505.

Gaea. Leipzig. 36 *Jahrg.*
Klein, H. J. Die neuern Forschungen über die Warmestrahlung und Temperatur der Sonne und deren Bedeutung. P. 391.
—— Das atmosphärische Gas Krypton. P. 395.

Petermann's Mitteilungen. Gotha. 46 *Band.*
Hergesell, H. Die Temperatur der freien Atmosphäre. P. 97.

Journal of School Geography. Lancaster. Vol. 4.
Herbertson, A. J. Climate of South Africa. P. 208.

Nature. London. Vol. 62.
Wilson, C. T. R. Atmospheric Electricity. P. 149.

Science. New York. N. S. Vol. 11.
Langley, S. P. Preliminary Account of the Solar Eclipse, May 28, 1900, as observed by the Smithsonian Expedition. P. 974.

Memorias y Revista de la Sociedad Científica "Antonio Alzarte." Mexico. Tomo 14.
Leal, M. Résumés mensuales des observations faites à Léon pendant 20 années, 1878–1897. P. 264.
Moreno, M. La variation diurne de la déclinaison magnétique à Tacubaya en rélation avec la période des taches solaires. P. 191.

Meteorologische Zeitschrift. Wien. Band 17.
Woeikof, A. Klima von Luktschun, Centralasien. P. 193.
Woeikof, A. Der Luftdruck und die atmosphärische Cirkulation in Asien. P. 202.
Woeikof, A. Wo ist der höchste Luftdruck der Erde, mit und ohne Reduktion auf das Meeresniveau? P. 207.
Kremser, V. Beiträge zur Frage der Kälterückfälle im Mai. P. 209.
Kassner, C. Ergebnisse von Beobachtungen über Wogenwolken. P. 216.
Supan, —. Die erste meteorologische Jahresreihe aus dem Südpolargebiete. P. 220.
Hann, J. Mittlere Regenmenge zu San Fernando 1851–1895. P. 223.
Okada, T. Der tägliche Gang der Bewölkung in Tokio. P. 224.
Kassner, C. Eine neue Schneekrystallform. P. 225.

MEXICAN CLIMATOLOGICAL DATA.

Through the kind cooperation of Señor Manuel E. Pastrana, Director of the Central Meteorologic-Magnetic Observatory, the monthly summaries of Mexican data are now communicated in manuscript, in advance of their publication in the Boletin Mensual. An abstract, translated into English measures, is here given, in continuation of the similar tables published in the MONTHLY WEATHER REVIEW since 1896. The barometric means have not been reduced to standard gravity, but this correction will be given at some future date when the pressures are published on our Chart IV.

Mexican data for May, 1900.

Stations.	Altitude.	Mean barometer.	Temperature.			Relative humidity.	Precipitation.	Prevailing direction.	
			Max.	Min.	Mean.			Wind.	Cloud.
	Feet.	*Inch.*	*° F.*	*° F.*	*° F.*	*%*	*Inch.*		
Culiacán Rosales (Sinaloa)	112	29.70	99.5	65 5	81.5	44	.....	w.	e.
Leon (Guanajuato)	5,934	24.27	91.6	46.6	71.8	31	0.31	se.,nw.	ne.
Mexico (Obs. Cent.)	7,472	23.05	85.6	49.1	65.3	49	1.56	n.	ne.,nw.
Morelia (Seminario)	6,401	23.97	87.6	48.4	67.8	49	0.33	w.	w.
Puebla (Col. Cat.)	7,112	23.36	85.3	47.8	68.7	54	1.48	ene.	ne.
Saltillo (Col. S. Juan)	5,399	24.75	89.2	53.6	71.1	59	0.26	nne.	sw.
San Isidro (Hac. de Guanajuato)	.....	.....	81.5	64.4	.....	.....	1.26	w.	.....
San José del Cavo (B C.)	.....	.....	87.8	70.7	78.4	.....	.....	s.	e.
Silao	6,063	24.24	87.3	55.8	72.3	52	0.51	se.	w.
Zapotlan (Seminario)	5,078	25.08	92.1	47.8	72.9	41	0.30	sse.	w.

SPECIAL REPORT ON THE FLOODS IN THE BRAZOS RIVER VALLEY, TEX., APRIL 27 TO MAY 17, 1900; ALSO FRESHETS IN OTHER STREAMS.

By I. M. CLINE, Local Forecast Official and Section Director.

The growing season of 1900, to date, appears to have been the most unfavorable to the extensive agricultural interests throughout the lower Brazos River Valley for nearly fifty years. The precipitation in the Brazos drainage basin has been excessive at most stations in all months this year. The months of April and May were characterized by two overflows of the Brazos River which were the most extensive and destructive in places that have occurred in nearly fifty years, with the exception of the unprecedented flood of July, 1899.

It was noted in the report on floods in the Colorado River Valley during April, 1900, published in the MONTHLY WEATHER REVIEW for that month, that heavy rains fell throughout the upper portion of the Brazos drainage basin, April 5, 6, and 7. The run off from these rains filled the upper portion of the Brazos River nearly bank full. This volume of water moved southward and reached the central and lower portions of the Brazos during the third decade in April. Floods from the upper portion of the Brazos seldom overflow the banks of the river south of McLennan County, unless heavy rains occur over the central and southern portions of the Brazos Valley simultaneously with the advent of the waters from the upper portion of the river in these sections. Heavy rains throughout Texas, April 22, filled nearly all small streams. Showery weather, with heavy rains in some localities, from April 23 to 26, inclusive, maintained streams nearly bank full. These conditions were followed by excessive rains, April 27 and 28, throughout the Brazos drainage basin which caused unprecedented floods along some of the tributaries of the Brazos in the central portion of the State, and also resulted in an extensive overflow of the Brazos River which commenced south of Waco, April 28, and passed into the Gulf of Mexico May 17, 1900.

The following stations report 3 inches or more of precipitation during the forty-eight hours ending 8 a. m., April 28, 1900; Alvin, 5.08; Anna, 4.20; Beaumont, 3.00; Coleman, 3.00; Forestburg, 3.90; Gainesville, 3.83; Hewitt, 6.05; Houston, 3.40; Hulen, 3.70; Saginaw, 3.05; Sugarland, 3.10; Temple, 5.95; Waco, 4.40; and Wichita Falls, 3.33.

The rainfall in Texas from April 22 to 30, inclusive, is given in the following table:

Station.	Rainfall.	Station.	Rainfall.	Station.	Rainfall.
	Ins.		*Ins.*		*Ins.*
Abilene	2.80	Emory	2 36	Longview	5.05
Alpine	0.12	Estelle	2.29	Luling	5.37
Alvin	6.00	Fort Clark	2.00	Mann	4.77
Alice	T.	Fort McIntosh	2.35	Menardville	0.00
Amarillo	1.49	Fort Ringgold	2.03	Mount Blanco	0.03
Anna	4.95	Fort Stockton	0.00	Nacogdoches	4.38
Anson	1.75	Fort Worth	3.23	New Braunfels	6.42
Arthur City	1.03	Forestburg	4.40	Palestine	4.21
Austin	2.52	Gainesville	5.73	Panter	3.12
Ballinger	4.60	Galveston	3.32	Paris	0.48
Beaumont	4.00	Georgetown	4.45	Point Isabel	0.50
Beeville	0.87	Grapevine	3.50	Rhineland	2.89
Big Springs	2.16	Greenville	3.18	Rockisland	3.84
Blanco	2.10	Hale Center	1.39	Runge	3.81
Boerne	5 82	Hallettsville	1.97	Sabine	2.70
Bowie	4.43	Haskell	3.70	Saginaw	5.25
Brazoria	2.76	Hearne	4.40	San Antonio	4.72
Brenham	4.30	Henrietta	2.98	San Marcos	4.70
Brighton	1.16	Hewitt	9.80	Santa G. Ranch	0.92
Brownwood	3.75	Hondo	2.85	Sugarland	4.81
Burnet	2.99	Houston	4.32	Sulphur Springs	1.41
Camp Eagle Pass	3.70	Hulen	7.25	Temple *a*	8.01
Coleman	4.51	Huntsville	4.05	Temple *b*	7.94
Colorado	3.21	Ira	1.33	Texarkana	4 24
Columbia	3.73	Jacksonville	5.10	Tulia	1.10
Corpus Christi	0.19	Jasper	3.95	Turnersville	2.60
Corsicana	3.46	Junction	4.20	Tyler	3.10
Cuero	4.25	Kent	0.16	Victoria	1.65
Dallas	2.40	Kerrville	3.33	Weatherford	3.04
Danevang	4.79	Lampasas	3.57	Waco	6.10
Dublin	1.53	Langtry	3.34	Waxahachie	2.45
Duval	3.97	Llano	2.83	Wichita Falls	3.75
El Paso	T.				

The geographical distribution of the rainfall which caused the floods in the Brazos Valley, April 27 to May 17, 1900, is shown on fig. 1, which has been drawn to represent the rainfall as given in the accompanying table. The rainfall in Texas from May 1 to 13, inclusive, was very light, so that the extent of the flood was not increased by rains during its progress southward. Heavy rains fell over the State May 14 and 15, but the crest of the flood was so far south that these did not affect the stage of the river in the locality of the overflow.

The distribution of pressure coincident with the rains from April 22 to 30, 1900, inclusive, may be summed up as follows: On April 22 the barometer was low throughout the Rocky Mountain region and west Gulf States, with the center of the disturbance over Colorado and Wyoming; an area of high pressure covered the eastern portion of the country. The low pressure area continued over the eastern Rocky Mountain slope and Texas during April 23, 24, 25, and 26, with slight changes in intensity and position of its center. During this time the crest of high pressure remained over the Lake region. From 8 a. m., April 26, to 8 a. m., April 27, the area of high pressure extended southward and covered the country east of the Mississippi River from the east Gulf coast to the Lake region; the barometer fell about one-tenth of an inch